

Ceramic Low Pass Filter

50Ω DC to 3000 MHz

LFCN-3000+ LFCN-3000



Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C
DC Current Input to Output	0.5A max. at 25°C

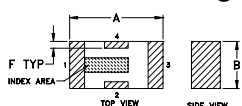
* Passband rating, derate linearly to 3.5W at 100°C ambient.

Pin Connections

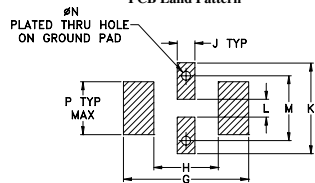
RF IN	1**
RF OUT	3**
GROUND	2,4

** RF IN & RF OUT can be interchanged

Outline Drawing



PCB Land Pattern

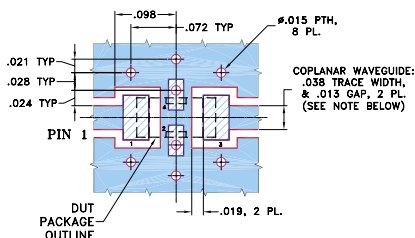


Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- protected by U.S. Patent 6,943,646

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-3000+	\$1.99	(10-49)
LFCN-3000	\$1.99	(10-49)
LFCN-3000D+	\$2.49	(10-49)
LFCN-3000D	\$2.49	(10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

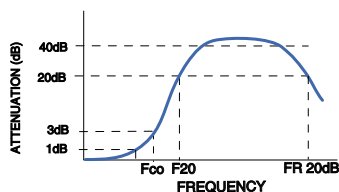
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications¹ (T_{AMB} = 25°C)

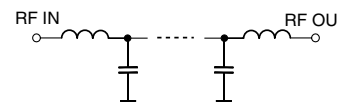
PASSBAND (MHz) (loss < 1 dB)	fco, MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-3000	3600	4550	4780-7500	10000	20	1.2	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-3000D (DC Resistance to ground is 100 Mohms min.)

typical frequency response



electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.03	1.01
1000	0.29	1.23
1500	0.40	1.34
3000	0.77	1.15
3600	2.96	3.08
4480	25.24	25.19
4780	40.44	29.96
5000	46.26	27.59
6500	36.73	19.98
10000	21.68	18.70
11000	19.41	13.70
13000	13.67	12.99
15000	14.56	11.61
17000	16.94	4.41
20000	24.85	4.88

